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MENTAL DISEASES

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MENTAL DISEASES

A HANDBOOK DEALING WITH DIAGNOSIS AND CLASSIFICATION

BY

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DR. WILLIAM NOBLE KELLER

A TOKEN OF ESTEEM

PREFACE

Recent readjustment in certain mental groupings and their nomenclature gives a special interest to those terms which are coming into common use.

The short chapters put under this cover undertake a statement as to the data essential in the recognition of the different psychoses.

The forms of mental disease mentioned follow modern usage. The first chapter gives the classification now accepted for use in the War Department, and recommended for general adoption throughout the United States.

However, the order of presentation belongs to the author, and is intended to put first those disorders that are most frequent, allowing the other divisions to be placed in suitable chapters.

In this writing, aside from the direct observation of hospital patients, I have studied the subject as given in various texts, particularly those of Kraepelin, Dercum, Tanzi, Diefendorf, White, and Jelliffe.

In access to hospital material, criticism, and valuable suggestions, I have been very generously helped and here wish to thank those to whom I am

indebted, particularly Dr. W. N. Keller, Dr. Frank T. Wilt, Dr. A. C. Stewart, and Dr. Walter T. Williamson.

W. V. G.

Fort Steilacoom, Wash.

INTRODUCTION

This little book is no superfluity; born of the wants we all have for concise, digested information, it institutes a response to that need. Dr. Gulick felt the demand as others have, but he happily responded. The physician in court, or conducting office or public examinations of the insane, or unexpectedly called upon for diagnosis in private practice, will accept this book with relief. It is original and pleasing, not a mere compilation, and has much pure Anglo-Saxon directness and clearness. It should be welcome to the profession.

W. T. Williamson, M.D.

Portland, Oregon.

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MENTAL DISEASES

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CHAPTER I

CLASSIFICATION

The classification of mental diseases given below is the one adopted by the American Medico-Psychological Association in May, 1917. This has been recommended for general adoption throughout the United States, and has been accepted for use in the War Department, under the direction of the Office of the Surgeon General.

PSYCHOSES

1. Traumatic psychoses.
2. Senile psychoses.
3. Psychoses with cerebral arteriosclerosis.
4. General paralysis.
5. Psychoses with cerebral syphilis.
6. Psychoses with Huntington's chorea.
7. Psychoses with brain tumor.
8. Psychoses with other brain or nervous diseases (specify when possible).
9. Alcoholic psychosis.
   (a) Pathologic intoxication.

(b) Delirium tremens.
(c) Acute hallucinosis.
(d) Korsakow's psychosis.
(e) Chronic paranoid type.
(f) Other types, acute or chronic.

10. Psychoses due to drugs and other exogenous toxins.

(a) Morphine, cocaine, bromides, chloral, etc., alone or combined (to be specified).
(b) Metals, as lead, arsenic, etc. (to be specified).
(c) Cases (to be specified).
(d) Other exogenous toxins (to be specified).

11. Psychoses with pellagra.

12. Psychoses with other somatic diseases (specify disease).

13. Manic depressive psychoses.

(a) Manic type.
(b) Depressive type.
(c) Stupor.
(d) Mixed type.
(e) Circular type.

14. Involution melancholia.

15. Dementia precox.

(a) Paranoid type.
(b) Katatonic type.

(c) Hebephrenic type.

(d) Simple type.

16. Paranoia and paranoic conditions.

17. Psychoses with mental deficiency.

18. Psychoses with constitutional psychopathic inferiority.

19. Epileptic psychoses.

20. Undiagnosed psychoses.

INEBRIETY

Alcoholism.

Drug addiction (specify drug).

MENTAL DEFICIENCY

Imbecile.

Moron.

Borderline condition.

CONSTITUTIONAL PSYCHOPATHIC STATES

Criminalism.

Emotional instability.

Inadequate personality.

Nomadism.

Paranoid personality.

Pathologic liar.

Sexual psychopathy.

Other forms (specify).

Undiagnosed.

This classification is from a memorandum of the

War Department that accompanied a letter sent by the office of the Surgeon General to the Superintendent of the Western State Hospital of Washington, under date of May 25, 1918, and is a part of the instructions given under direction of the Surgeon General to divisional psychiatrists and other medical officers in charge of neurological and psychiatric examinations.

For many years the reading, and even discussion, of nervous and mental diseases has been difficult, and inclined to apparent confusion of thought, because of lack of uniformity in the meaning of words used. These difficulties have been emphasized by the period of development which has secured a standing for the manic depressive psychoses; has expanded the dementia precox group; limited the cases to be counted as true paranoia; and come to a more discriminating appreciation of various other forms.

Further, the writers on these subjects have been individualists, with opinions of their own concerning classification. The result has often been shown in court room disputes which concerned a definition more than a condition. All who read these subjects had to make adjustments between authors, and proper statistics have been impossible.

The country is now indebted to the American Medico-Psychological Association for shaping the

present table, and this year cooperating with the National Committee for Mental Hygiene, to secure its introduction throughout the country and it is in place to add that the majority of the state hospitals have already either adopted this new system or indicated their intention to do so.

CHAPTER II

DEFINITIONS

Insanity has no clean-cut and commonly accepted definition. This word goes back to a time when it was believed that sickness of the mind was all of one sort. Now there is a recognized group of separately defined mental diseases, and in Appleton's Medical Dictionary insanity is frankly called an "obsolete medical term." The word "psychosis," used in the plural, is acceptable and suggests fairly well the present attitude of this department of medicine which may regard certain mental conditions, paresis, dementia precox, paranoia and others, as in need of hospital care, just as general medicine may send to a hospital of another sort cases of typhoid fever, pneumonia or smallpox.

The *psychiatrist* has no definition for his own use. Dercum provides for the court room the explanation of insanity as a "diseased state in which there is more or less persistent departure from the normal manner of thinking, acting and feeling," and Dr. W. A. White in a recent address has spoken of insanity as "a certain type of socially inefficient con-

duct, a certain degree of socially inefficient conduct that causes trouble in the community."

In law, procedures in connection with insanity have usually to do with the question as to whether an individual is in condition to properly care for himself and his property. Here also the word "insanity" is loose in definition, and is further confused because of a lack of uniformity between different states.

The ground for commitment is found when there is a mental departure from the normal self of the individual of such duration and degree as to disqualify him, either on his own account or on account of others, from being a member of society.

Common Symptoms of Diagnostic Value

Ataxia indicates a lack of muscular coordination.

Delusion is a false belief which can not be corrected by adequate evidence.

Hallucination is a conscious sensation that comes without any external object to cause it. Thus the act of hearing when there is nothing to hear, or of seeing what does not exist (and is not even suggested by any object in sight) is a hallucination. Such an impression may come through any of the senses, but hallucinations of sight and hearing are most frequent.

Illusion is a wrong interpretation of something that really exists.

Orientation expresses the conscious relation of the individual to his environment and may concern itself with place, time, and people.

Pressure of activity indicates a mental state that demands expression in extraordinary muscle activity and the dominant impulse is to movement on movement.

Psychomotor activity is the phrase describing muscle action under normal nervous control. When there is undue slowness, *psychomotor retardation* is a proper term, while the opposite condition is described as *increased psychomotor activity.*

Psychosis is a mental disease.

CHAPTER III

EXAMINATION

The working out of a mental diagnosis may take much time and repeated observations, but with such an opportunity as is open to the physician when called to the home or the court room, usually he can reach some opinion as to the mental condition of the patient, so as to give advice as to the immediate care needed and to comment as to the cause and outcome.

Under such circumstances many processes of the laboratory or of a full clinical examination are either out of reach or for the time inexpedient, but because of the presence of friends and relatives it is ordinarily possible to get the advantage of a good history and this may mean much.

At the court house it is the custom to follow the procedure of the commitment blank, while in the home the method must adapt itself so as to consider the patient and his family.

An examination routine will lessen the risk of missing points that count. This is helped by a written memorandum, and especially in cases where

some legal opinion is asked a record of statements in the words of the patient may develop value.

There are four general heads: (1) History of the family, (2) personal history of the patient, (3) history of the disease, and (4) the present mental and physical condition of the patient.

1. General questions seldom get a family history. It is well to begin with the name, occupation and birthplace of the father and mother and the fact as to relationship between them; also to know the number of brothers and sisters, and then in regard to each of these, or any other near relative, to learn as to general health, deformities, nervous diseases, epilepsy, asylum commitment, mental peculiarity, known bad habits, use of alcohol, history of suicide or prison sentence.

2. The personal history may begin by asking as to incidents that marked the birth of the patient, having to do either with the mother or the child. Facts as to general health, diseases, injuries, and operations belonging to childhood or later life are to be recorded as well as information secured from such questions as were indicated in connection with the family history. Further, there is to be noted the years at school, the progress of the child as compared with others, then the developments that came later in his life at home and at work. In this connection, ability for physical and mental

work, character development, habits in eating, forms of amusement, or the use of narcotics may be of significance. Proper inquiry should be made as to emotional disturbance, which is particularly liable to be evident at puberty and in connection with the menstrual periods.

3. In getting the history of the disease, a direct question may bring out the date of its beginning, but often this is unknown, for not infrequently the disease develops slowly and goes a long time without recognition. On this account, the date given may be wrong, indicating only the time when certain symptoms forced attention. Sometimes the patient can give for himself the most exact and accurate statement, but more often the story is best secured from his family.

It is important to know whether there have been previous attacks, and if so whether or not the interval seemed to give a normal condition.

The story of the onset and the subsequent symptoms is sometimes told in a connected way, but more often it has to be asked for in a series of questions that may need to be repeated for different periods. For this the ground is well covered by the outline used by Diefendorf both here and in recording the mental status of the patient. This notes information as to hallucinations, illusions and delusions, and also as to disturbances in orientation, attention, memory

and train of thought, as well as in the emotional and volitional fields.

4. In judging the present condition of the patient the physical examination, aside from the general findings of the chest and abdomen, should note the manner, attitude, degree of nourishment and any stigmata of degeneration, or evidence of cyanosis; also, the different reflexes, particularly the pupillary, should be observed.

Information as to the mental state has been secured through the several stages of the examination, but is properly reviewed as to disturbance under the headings mentioned.

Perception (hallucinations or illusions.)

Apprehension (unconscious, befogged or diminished sensibility).

Attention (blunted, blocked, retarded, passive or easily distracted).

Memory (impressibility faulty, retentiveness faulty, fabrication).

Orientation (does the patient know where he is and who he is).

Train of thought (paralysis of, retardation, compulsive, persistent ideas, flight of ideas, desultoriness).

Judgment (Are there delusions?).

Emotional field (deterioration, irritability, seclusiveness, fear, dejection, feeling of well being, sexual manifestations).

Volitional field (paralysis, retardation, hypersuggestibility, cerea flexibility, stereotypy, negativism, pressure of activity, mannerisms).

In this way data can be obtained for a provisional diagnosis, though there will at times be occasion for later revision.

Before ending this chapter mention is properly made of psychoanalysis, which is a procedure by which search is made for the elemental thoughts or incidents that lie at the beginning of the mental disturbance. This method properly carried out holds large possibilities, but in its nature and the time required, goes beyond the limits of the type of examination to which these pages belong.

CHAPTER IV

MANIC DEPRESSIVE PSYCHOSES

Manic depressive insanity includes cases that used to be divided among different groups and named mania, melancholia, or circular insanity.

Credit is given to Kraepelin for showing the entity of this psychosis. In mania and melancholia alike the patient continued free from progressive mental deterioration. Each ran through a period of mental disturbance followed by a relatively free interval with a later recurrence. It was observed that in mania, depression might precede the state of excitement or follow as an interval shadow; while in melancholia the patient at times showed a variation marked by some tendency towards excitement, and often this change of type was definite.

Thus came the recognition of manic depressive insanity, which has a manic type, a depressed type, and a mixed type, and this mixed form, when alternation is direct without any interval, is called circular insanity.

There are no characteristic pathologic changes. The influence of heredity is not infrequently made

plain by the family history. A constitutional predisposition seems to yield before some circumstance of strain. It is not unusual to have the disease begin without any apparent cause. However, in these instances a full anamnesis may bring out both the hereditary taint and the nature of the circumstance that fixed the date of development.

The manic type is divided into hypomania, acute mania and hyperacute mania. These forms place the degree of development. There are three important symptoms: flight of ideas, psychomotor excitement and emotional excitement. The ideas that come are normal in character, but each in turn tends to fail of being rounded out, because it is too quickly crowded aside by the next, which is soon lost in the one that follows. In the phrase "flight of ideas" we have a figure that suggests thoughts coming in such a flock as to interfere with each other. Thus ideas come too close together to find space in time to unfold.

But in hypomania this is not necessarily a marked symptom. Emotional excitement usually attracts attention and the patient may be nervous and quick, perhaps superficially clever. There is increased activity, which is inclined to change its direction and thus fail of any reasonable result. The individual act will be normal enough in character but liable to be broken off anywhere, and often there is uncalled

for irritability. As these incidents are prominently placed the work of the man is broken and his usual life made impossible.

Acute mania emphasizes this picture, the flight of ideas attracts attention; an attempt at conversation shows a medley of sentences and phrases, but between these there is usually connection,—that is, the one idea in some way calls the next; it may be similarity of sound or previous association, or a remote connection of any sort, that carries the patient rapidly on without apparent exhaustion. A flight of ideas stops ordinary observation, and in consequence the patient seems disoriented, to lack memory and ability of apprehension, all to an extent that is beyond the fact. He can not keep still, and every impulse leads to action which now easily goes to violence. A manifestation of excitement is often the most striking symptom, but this by itself is not enough to put the patient definitely in this group because dementia precox, general paresis, epileptic insanity, senile dementia and certain other psychoses may show periods of similar excitement, where the differential diagnosis requires other symptoms as well as the physical signs, which in certain cases are of most importance.

Hallucinations and delusions can come, but are neither essential nor permanent. Occasionally there is a grotesque decoration of the person. Flight of

Fig. 1.—Manic depressive insanity, manic type.

ideas, psychomotor excitement and emotional excitement go on rather evenly. These three symptoms increase for a certain period, which may be a

Fig. 2.—Manic depressive psychosis, manic type, but here showing depressed state.

week or more, reach a climax and then, gradually lessening, indicate the progress of a convalescence from this particular attack that may stretch tediously through several months. The pulse is usually

Fig. 3.—Manic depressive insanity, manic type. Hair over face, hands in violent motion.

fast, pulse pressure low, knee jerks exaggerated, and the pupils equal.

The hyperacute stage finds the patient exhausted from violence, incoherent, delusional, with consciousness clouded, and an emaciation complicated with toxemia.

The depressed type also has three open symptoms: difficulty of thinking, psychomotor retardation, and emotional depression. The beginning often is marked by some situation that causes worry. Thus a painter and paper-hanger, subnormal in health from exposure to lead, when out of work for several months, brooded over the matter and could not sleep, had a poor appetite, sat around, attempted some work but could not carry it through. He left work undone without knowing why, hung paper upside down, and in other ways proved himself incompetent and was often unreasonable. This man was recently committed, but from this sequence we do not hold the lack of work as an adequate cause for what followed, though it was the incident of precipitation.

Such a patient will often sit relaxed and apathetic, with folded hands and head bowed. It is hard for him to think and difficult to act. He lacks energy to begin, moves with hesitation, and if started can not finish anything. A man sent to help in caring for guinea pigs was weighed down by the thought

Fig. 4.—Manic depressive insanity, depressed type.

Fig. 5.—Manic depressive insanity, depressed type.

of his responsibility. The degree of depression may be painful. Speech is an effort and the words are sometimes so indistinct that the sentence is easily lost. But patience in listening may prove the ability of the patient to remember and think correctly. Often there are feelings of self-condemnation, and delusions may go in this direction. The most frequent hallucination is that of smell, which is liable to be of some disagreeable sort.

Physically the discomforts, as dizziness, palpitation, tinnitus and heavy limbs can be largely explained through a faulty circulation. The weight may be subnormal, the blood pressure increased, and the pulse slow. Simple retardation, acute melancholia, and stuperous melancholia are divisions that indicate the degree of depression, the last of which is a befogged condition with the patient unable to respond to the processes of an examination.

The diagnosis of the manic type from dementia precox, and of the depressed type from senile melancholia may take time. Here the essential information sometimes is obtained from a history that tells of relatively long lucid intervals, with different recurrent attacks. This recurrence is characteristic of this disease; and with the diagnosis once made the prognosis expects another attack, though there may be an indefinite interval even of months reaching into years.

CHAPTER V

DEMENTIA PRECOX

Dementia precox is perhaps the mental disorder that takes more young people to institutional care than any other. In Washington this gave over one-third of the total admittance for the last biennium. It is a condition of mental deterioration. The cortical cells show some degeneration and the neuroglia may be increased, but the pathologic findings are limited. The cause of this disease has not been established, but a rather generally accepted theory is that of an endogenous toxic effect, got possibly by the functional disturbance of a sex gland. However, some of the best recent work tends to find a psychogenic beginning, with a loss of balance in the mental metabolism.

There are three main groups: the hebephrenic, the katatonic, and the paranoid, which have in common certain fundamental markings. Where conversation is possible the examination usually develops a mental isolation that is characteristic, and makes the somewhat hidden background for other typical manifestations, as negativism and indifference. A

muscular tension frequently emphasizes the negativism, while the apparent indifference may show both in attitude and speech. The clinical picture has been called polymorphous, but these features,

Fig. 6.—Dementia precox, hebephrenic type.

mental isolation, negativism and indifference, are usually in some degree evident.

Further, the orientation is persistently good; the patient knows who he is and where he is, though the examiner may be led astray as to his observa-

tion in a field that is controlled by some other symptom; and at the time of commitment it is rather usual for some degree of either excitement or stupor to be in evidence.

From beginning to end the symptoms are such as may be developed through a mental deterioration, and it is this fact well held in mind that secures a fair understanding of the entity that gives to careful examination a group which allows more possibilities for individual variation than any other form of mental disease, and sometimes puts close together in diagnosis patients that show contrast in manner, speech and history.

The intellect and the emotions have lost companionship; in consequence cause and effect may seem to have queerly gone wrong; the expression of pleasure may be clearly out of place; a silly laugh may go on as an uncontrolled physical performance. A broken pane of glass, or the loss of home and property are mentioned evenly with implied indifference.

And this indifference which often is apparent is perhaps not so much a real indifference as it is a lack of observation, a perception which is too insufficient to either prompt action or thought. The beginning may be slow, characterized by indefinite or even misleading evidence. The child in some instances is precocious, but in time the tendency to

superficiality grows; cleverness proves a veneer only, and mental deterioration in some degree is underneath, though in school, social life or business, this may for a while be well covered.

The beginning is usually slow and even when the progress from the first open symptom leads to commitment quicker than is usual, in the light of what has happened there can be found suggestive color in the earlier history of the patient.

Once developed, the disease often shows itself in mannerisms and repetitions of speech or action, and there may be an apparent looseness of thought for which psychoanalysis, where possible, can uncover the connection. Rarely an epileptiform convulsion occurs.

1. Of the three definite types, the hebephrenic is the most frequent form and its beginning is usually unrecognized. The dementia may show first simply lack of ability to think and do well what might be normally expected, from this going on with a self-centered attitude to a marked carelessness in conduct. Such a patient may brood or be irritable, become restless and irresponsible, develop some or all of the symptoms that have been mentioned as commonly characteristic of this disease. Sexual passion may display itself. Hallucinations are liable to be of a disagreeable variety, and are most often of hearing, though bad smells and disturbing sights

are what the senses sometimes find. Delusions which are often of persecution, but may go in other directions, are likely to be indefinite and shifting; and especially is it suggestive to have the patient give at

Fig. 7.—Dementia precox, hebephrenic type.

random outlandish or inadequate reasons as explanation of the delusions or for his conduct, and to be entirely satisfied.

An Italian writer has used the expression "stolidity of conduct," but for the hebephrenic type a dullness of emotion, with an irresponsible indifference, seems a closer comment in many cases.

Physically the changes are such as might be expected with a condition made subnormal in certain ways by the mental life. A low blood pressure is usual.

A year ago a young man just of age, who had been firing on a small steamship, was judged insane. His commitment papers state that during the preceding twelve months his actions and disposition changed radically, he refused to eat with others, used his hands only, became a glutton, had dirty habits, threatened people, swore, went for months without a bath and claimed that all kinds of persecution were being practiced against him. A report from the grandmother tells that the father was a drunkard. The patient as a little boy was likeable and bright in his studies, but this did not last; later he became impudent and lazy and neglectful of his appearance, the change being particularly evident when he was about fourteen.

With other findings the hospital examination observed the patient as stupid and confused, noted a diminished sensibility to external stimuli, clouding of consciousness, retardation of attention, desultory train of thought, psychomotor retardation, and al-

Fig. 8.—Dementia precox, hebephrenic type.

ready knowing the history made a diagnosis of the hebephrenic form of dementia precox.

Under hospital care, this young man improved physically and mentally, and within several months became an agreeable patient and good worker, delivering supplies from the commissary.

On March 21 of this year he was paroled into the care of his grandmother, but was returned in August as he became impudent, threatening and disagreeable in his habits.

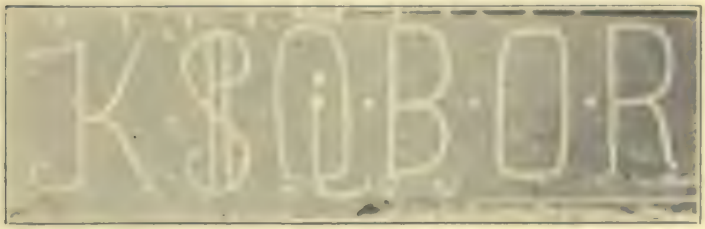

Fig. 9.—These letters were scratched on the wall by a dementia precox who did the same thing (with a nail) in a number of rooms.

2. Katatonia often displays very openly as its main symptom a stiffness of attitude supported by negativism and stupor. Some of these patients go to extreme length in resistance to everything and in maintenance of postures. The condition of stupor may change to one of excitement or, after lasting months, may in a short time make a marked improvement.

Ten months ago an Austrian, twenty-two years old, was admitted. He was in bed and would hold

Fig. 10.—Dementia precox, katatonic type.

Fig. 11.—Dementia precox, katatonic type.

indefinitely the positions into which he was put, until lost through fatigue. He could be stood or moved as an automaton, and continued for months in this condition. Now he is up, able to walk, stands much of the time, is occasionally angry and then may bite, scratch or strike. Recently he put his hand through a window. Much of the time he stands in a characteristic katatonic attitude, but will now eat if left alone with food.

3. The paranoid type gives prominence to more or less fixed and progressive delusions, often of persecution, together with other findings that show the patient a precox case.

A delusion founded on some hallucination is frequent enough to be characteristic, but the connection may be vague. A young man hears voices talking, not to him, but so that he can overhear in part. He believes that the voices belong to some girl acquaintances, who are at the time on the roof and are calling on him to help because they are there being abused.

For some the dementing process comes quickly, and then the delusions more easily go to absurdities and grotesque fancies. A musician, in his thirties, fills his conversation with a medley of delusions. He tells the story of a fight between two musicians as to whether violins or banjos are being used in China, and in close connection adds that the priesthood or-

ganizes on overcoats and sells overcoats. He states that the Bass Clef Society and the Weenie, Weenie Walker Club use different colors; that hymn 1098

Fig. 12.—Dementia precox, paranoid type.

was written in that year; that the color in his eye reveals to him that he sees snakes and has been fed

Fig. 13.—Dementia precox, paranoid type.

on snake eggs. He talks with Jim Hill indirectly and Mr. Hill pays musicians to study the Bible.

More commonly the mental deterioration is slowly progressive, and the accompanying delusions occa-

Fig. 14.—Dementia precox, paranoid type. This patient claims to be President of the United States, Mayor of Seattle and Mayor of Tacoma, and wishes to be released so as to accept his official responsibilities.

sionally persist through months with little or no change.

Thus a young man committed by the Seattle court

three years ago has continued his delusions of persecution. His good physical condition and his straightforward, earnest manner easily hold attention. He believes that he is illegally held and wishes to have this matter at once brought before the proper court, but with a chance to speak to the physician or anyone else, goes on to tell with detail how he is burned each night by electricity that comes from some machine outside the building. For some weeks he kept a diary which he wishes for court evidence, and this on each page tells of the burning by electricity.

Between this type of a delusion and those of paranoia there is similarity, but there is also an essential difference which is best measured in the extent of stability that belongs to the one above the other. The delusion of a paranoiac holds with the firmness of an oak that grips solidly into the right ground with its root; while the delusion of the paranoid dementia precox is more like the California Yucca, which one easily uproots from its sandy soil. The dementia is the soil that prevents the same degree of fixity and systematization that characterize the delusions of paranoia.

In addition to the three main types discussed a *simple type* is now recognized in diagnosis. This form is related to the hebephrenic, but the marks of dementia are not as distinctive. The beginning is

Fig. 15.—Dementia precox, simple type. Was a tramp, pockets were filled with rubbish.

of a gradual sort. Definite delusions and disagreeable hallucinations may work a period and then fade. Even simple responsibilities are not decently carried. Many prostitutes and tramps have belonged in this group. Recently men of this sort have passed through various recruiting offices into the army, where their conduct has usually got them into the guard house, from which they have been properly removed to institutional care or returned to their homes.

No age line can be strictly placed, but it has been observed that cases in the hebephrenic group usually begin when between fourteen and twenty years old, those of the katatonic type in the third decade, and of the paranoid sort when over thirty.

In dementia precox many cases reach some degree of improvement, but relatively few recover so as to stay apparently normal. For the paranoid type the prognosis as to recovery is bad.

CHAPTER VI

GENERAL PARALYSIS

(Paresis; General Paresis; Dementia Paralytica)

In an institution general paralysis is a rather well defined group, carried by organic changes in the brain through a characteristic course marked by progressive mental and physical deterioration, which in its last stage usually holds the patient bedfast to a uniform end.

For each of the several synonyms in the above heading there is good authority. General paralysis has the approval of present army usage. In the name dementia paralytica the words themselves are properly descriptive. Paresis is a shorter term that may come into general use, while general paresis is more accurate. General paralysis of the insane was the phrase with which Kraepelin first named the disease, and by some it is still preferred.

Outside, the beginning comes without recognition; the date of the first symptoms is found later by retrospection. But an early diagnosis is of much consequence and may go far to save a family gross em-

barrassment, and to hold the patient from business indiscretions of a serious sort.

The pathologic findings for this disease are rich in detail, and taken as a group give a definite diagnosis. The skull is often unevenly thickened, with the dura stuck fast in spots, while an effort to move the pia tears at points into the brain substance. The whole brain is somewhat shrunken, with fluid in the free spaces and evidence of inflammation going below the surface. Nerve fibers and cells show degenerative distortion; this is also true of blood vessels and lymphatics. There is an increase in capillaries and often there are irregular dilatations and perivascular deposits. Lesions of an inflammatory type mark the spinal cord, and there may be areas of softening.

The cause of general paresis is now accepted as syphilis, but the nature of the incident that brings this disease of the posttertiary stage to one and protects ninety-nine others is unknown.

The first evidence often comes as a character change. A man of respected standing may develop irregular habits that go any length in the disregard shown for custom or the ethics of society. Ability for application is lost; indifference to detail is followed by an irresponsibility which can be partly hidden even while it is emphasized by an overactivity in attending to matters at hand. Emphasis

will often be put in the wrong place. A tendency to overlook important detail makes work unreliable; carelessness usually shows in dress. All fine manipulations are difficult, and the fingers grow awkward at knotting a tie. Lapses of memory go on to defects which may be repaired by the imagination; whatever enters the mind may come to be stated as a fact. Easily the patient lets go of money, growing disinclined to work, and often for an outlandish act he gives an outlandish reason, with an apparent belief in its sufficiency. There is an expressed confidence as to immediate ability for doing large things. A man without money thus comes to talk of using millions in railroad construction, possibly to the moon.

Delusions, while not essential to the picture, are usual, and when they come change easily and tend to absurdities, particularly as to wealth and power.

Variation from a normal pupil can usually be found at some period in the disease, but is not always permanent. The Argyll Robertson reaction, or either an inequality or rigidity of the pupils is significant, and the consensual reflex may be lost. The knee jerks are most frequently normal or exaggerated, but may be lost.

Further development is marked by the paretic seizure and, while this does not always come, it is especially a characteristic incident. Epileptiform

Fig. 16.—General paralysis, advanced second stage.

and apoplectiform are used as descriptive adjectives. This convulsion is at times indistinguishable from that of true epilepsy and can have as many variations, but is inclined to last longer and to clear less completely. Thus after every such attack the degree of dementia is deepened and, though afterwards improvement comes slowly, each time it fails to quite get back what was lost. Such a seizure, where there is no family history of mental disease, is suggestive.

While there may have been earlier intervals when the symptoms could have been easily overlooked, the changes that follow take a more definite course.

Already a loss of muscle tone has lessened facial expression, smoothed away wrinkles and caused the nostrils to spread. And also there has been some speech disturbance; a monotonous tone carries the words with lost accent, and the difficulty in articulation is brought out by test words as "Seattle Post-Intelligencer."

All these symptoms, as well as the other findings already named, grow more apparent. Speech, but writing more, loses syllables and leaves out words. The signature is sprawling and the address loses letters and becomes illegible. The Romberg sign is usual and the gait ataxic.

Finally the patient is put to bed because with growing weakness the unsteady gait has made it

Fig. 17.—General paralysis, advanced second stage.

unsafe for him to walk. Then he lies bedridden for weeks or months, often unable to do anything for himself; only constant care may protect him from bed sores. Almost always there is appetite and good ability to eat. A feeling of well-being continues seldom broken, mental deterioration increases, conversation becomes impossible, but an occasional word suggests former delusions.

It is rather customary to name three stages. The first develops the prodromal symptoms and proves the incapacity of the individual who has feelings of special well-being. The second begins with the seizure, emphasizes all the previous abnormalities and adds physical changes. The third has the patient in bed. This disease has many variations: a convulsion may mark its introduction; the patient is sometimes in a condition to attract much attention, but the course may go to its end without any happening of consequence.

As to subgroups there are no clean-cut divisions. A demented type called typical goes from a gradual onset through a routine course. The expansive type attracts attention with extravagantly ridiculous delusions. The agitated form shows excitement, has extreme delusions, and runs a short course; while the depressed form often shows a clouded consciousness with delusions of self-accusation.

The prognosis gives a three-year average, but the

expansive type may have periods of relative recovery and live two, three or four times as long.

In diagnosis it is well to have in mind the fact that an epileptiform convulsion for a man in middle life, without a history of epilepsy, is suggestive.

As already said, early recognition is often very important. Impaired judgment, a change of disposition, moral obtuseness and self-satisfying, inadequate explanations are grounds sufficient for suspicion.

Spinal fluid examination may be a valuable aid, when it can get as confirmatory evidence a positive Wassermann, Nonne's albumin test, Lange's gold chloride test, and a cell count of over 20. And these findings will at times be positive, while the Wassermann for the blood stays negative.

The differentiation from an alcoholic psychosis is made when the alcohol is withheld. The other condition which may simulate the prodromal stage, is hysteria, but here the attitude of the paretic towards himself is essentially different for he never overstates personal discomforts, but later develops physical signs.

In September 1914 a German mechanical engineer, thirty-two years old, was received here. Ten years before he had been treated for syphilis. During the year before commitment he came gradually from an energetic, cheerful disposition to be irritable.

He had a desire to have and spend money, but no inclination to earn it. He became indolent, indifferent and imaginative. His wife wrote, "He spent foolishly all we had, yet thinks we are wealthy." At the time of examination he said, "I also invented that electric aeroplane, that big cast-iron one; you remember the time I went up in Seattle. It is made of three-inch armor plate. I just invented it for commercial use. When I left, my wife asked for $15,000, but I gave her $500,000. I bought a lot of silk for seven dollars, but when I got home and opened the box there was $15,000 worth of silk."

The Wassermann examinations for serum and spinal fluid were positive, Nonne positive and Lange's positive, the cell count 130 to the cubic millimeter.

There have been some variations in the condition of this patient. Treated by the Byrnes method he had twenty-four intradural injections of mercury, as well as intramuscular injections. On the whole the change has been one of increasing weakness and mental deterioration. In this period he has taken food with relish and been free from evidence of suffering. He died after being bedfast for several months.

CHAPTER VII

PARANOIA

Paranoia names a form of insanity which, though relatively infrequent, is known to the public through the newspapers because of different trials that have attracted general attention, with a defendant so mentally alert that in court it has been hard to show convincing reason for committing or holding him in restraint.

In paranoia the life of an individual is marked with a system of delusions slowly developing from a series of false conceptions. The delusion is not the disease, but it is the one characteristic and essential feature of this psychosis.

There is often some constitutional defect, with a family history in the background, while the recognized beginning in early adult life may be connected with some circumstance of strain or special disturbance.

The general conduct may be near normal, and the mental condition go without evidence of fault when conversation does not touch the diagnostic delusions. Pathologic studies are negative in their findings.

When the diagnosis is made it may be possible to go back through ten years and put together incidents that belong to an earlier picture. An insidious and gradual development is the rule. Irritable conduct and an inclination to grumbling may be remembered, brightness or flightiness may have been remarked and also a tendency to suspicions that had a trivial cause or no cause at all. This last is an early characteristic and is of the most significance. The individual may show himself sensitive, distrustful and inclined to hold aloof even from friends. Ideas of persecution may take the victim away from his work from one place to another, gaining no more relief than a temporary respite, for the delusion is not long left behind.

The man who is at first suspicious may lead himself to the thought of definite persecution, from which he tries to go away but finds that he is persistently followed, and so in the end turns on his tormentors. This sentence is perhaps the statement of a history that runs through some years and ends with the development of a dangerous stage.

When false interpretations finally give prominence to fixed delusions that show themselves shaping into a system, the paranoiac may be named as such. Other psychoses have delusions too, and in paranoid dementia precox these may be measurably fixed, but the paranoiac in all his earlier stages stays free from

Fig. 18.—Paranoia. This man states that he is a priest democrat and a social democrat. Claims that fighting is his business. Delusions fixed.

Fig. 19.—Paranoia. The discoverer of radium. Speaks easily, has abrupt self-confident manner, drops eyelids while talking. Has cynical expression.

Fig. 20.—Paranoia.

the other evidences of mental deterioration that go with dementia. His delusions have been well termed fixed, systematized and progressive, and are often neither absurd nor impossible. In fact, they are often so plausible that the unfamiliar mind can not be convinced of their falsity until other evidence appears.

The developed paranoiac is rather the aristocrat of the asylum. Touching his system he is expected to stay impervious to reason. But at times this may be a buried fact and hard to get at. Often his assertions are found to be not carefully made, and this is so although at the same time he speaks with emphasis and an extra show of confidence. Certain acts the patient may recognize as foolish, but for these he is ready to elaborate an explanation.

At the end as in the beginning, the patient is found with a system of connected delusions influencing his life, but is not much marked by any other changes.

The delusion of persecution, which is usually fundamental, may lead into others as love, religion or grandeur, and there are cases of this sort that go on to develop a changed personality and to claim the identity of some distinguished name.

Alienists quite generally agree that a genuine case of paranoia does not recover and is dangerous in his liability to commit violent assault. But recently

attention has been called more to the interpretative attitude which in this psychosis seeks to study first the events in the patient's life that gave those material incidents from which the delusions were made, and then to know their manner of development and the extent of influence acknowledged in the life of the patient. The result has been to recognize different paranoid forms as belonging elsewhere and also to show reason for being somewhat less dogmatic in denying the possibility of effectiveness to every therapeutic measure. And the prognosis needs in each case to consider the individual, particularly in relation to the history of his delusions, their kind, degree of development, and fixedness. This is important for, while recovery is not looked for, the immediate need of full supervision can thus be judged. As a class the paranoiacs are dangerous and clever, and persuasive.

This cleverness may go with big schemes. Thus Mr. X. three years ago proved his ability to the embarrassment of a well known company in getting from them the acceptance of his note for over a million dollars for ninety days. And it was while selling stock under the plan thus arranged that he was taken into court and committed after a trial by jury. In the asylum he has since developed a system of fixed delusions in which those in authority, particularly the judge of the committing court, are

held associated with a conspiracy to restrain him illegally. In this connection he has made many detailed written statements, addressed to newspapers, attorneys and different prominent men.

COMPARATIVE TABLE

	MANIC-DEPRESSIVE PSYCHOSES	DEMENTIA PRÆCOX	GENERAL PARALYSIS	PARANOIA
MENTAL DETERIORATION	No marked change.	Yes.	Yes.	No.
DELUSIONS	Transitory and reasonable.	Usual. Often of persecution.	Frequently of ridiculous exaggerations.	Systematized.
HALLUCINATIONS	Sometimes transitory.	Frequent, especially hearing.	Occasional.	Rare.
PSYCHO-MOTOR ACTIVITY	Retardation or hyperactivity.	Indifference. Negativism.	Occasional increase, but usually gradually progressive sluggishness.	Usually normal.
PRINCIPAL MENTAL SYMPTOMS	Difficult thinking or flight of ideas.	Isolation of patient. Out of contact with immediate environment.	Fabrication of memory.	Normal mental processes but fault in judgment.
PHYSICAL SIGNS	Incidental to disease stage.	Circulatory disturbance. Katatonic type: muscular tension and waxy flexibility.	Pupillary and speech disturbance. Knee jerks vary; are often exaggerated.	Negative.
ORIENTATION	Normal or apathetic, rarely delusional	Normal.	Becomes disturbed.	Normal.

CHAPTER VIII

EPILEPTIC PSYCHOSES

Epileptic feeble-mindedness with the classical grand mal or lighter petit mal is a subject belonging to general medicine, but in the study of legal and mental diseases acquires special importance for there is no other morbid state that so often holds responsibility for unprovoked criminal action. A social deterioration thus may shape a vagabond, or explosive violence lead to arson, murder or immoral offences. The variety of possibilities is hardly limited.

The question of insanity may be one for nice adjustment, for the diagnosis must take well into account the history of the case, the mental and physical markings, and then judge as to whether the protection of others or the welfare of the patient makes commitment advisable.

With a story of violence that may be repeated, the need can not be set aside and crimes of exposure may settle the point, but there are other cases where the resources of the home are to be considered as well as the patient himself.

Defective heredity is frequent. In this connection parental alcoholism and epilepsy are to be specially mentioned, though many other physical and mental faults are put in the same list.

The pathology varies as does the cause, and so it is better to put the word in the plural and to speak of the epilepsies. The true epilepsy which has an obscure etiology usually is marked by sclerotic changes in the hippocampus major or a gliosis near the surface of the hemispheres. It is this form, without any clear etiology, that most often goes on to mental manifestations.

The symptom best known in epilepsy is the convulsion, but for convulsions there are different causes which at times can name a disease, and each of these as recognized in general medicine should have sufficient consideration. But it is a period of unconsciousness in connection with the convulsion that is of most diagnostic value. This may be very short or may last through several hours. And in close connection there can happen a preconvulsive or postconvulsive twilight stage, sometimes stretching through different days. And it is just at this time that the dangerous acts of an epileptic are likely to occur. Often there is evident confusion with further mental disturbance which may show various forms of indiscretion, and violence may immediately precede or follow the convulsion. But further it

must be held in mind that with rather obscure evidence for diagnosis there may be acts of a criminal nature for which the disease is the cause. Also, instead of any frank convulsion, there may be an epileptic equivalent, perhaps a recurring incident of confusion or depression, that in certain cases can prove a diagnosis of legal importance.

The patient often shows marks of degeneration, as jug-handle ears or other malformations. There may be significant scars on the tongue or larger ones on the head. A clumsiness may go with the progressive feeble-mindedness. Some are quick-tempered or surly, with an easy change of mood, while others may be dull and good-natured with a hesitating, dragging speech that attempts a painstaking accuracy of detail. Hallucinations are rather the exception, illusions may develop near the attack, and sometimes there are delusions of an extraordinary sort. In the interval the orientation is usually good and the conduct normal.

A lumberman thirty-seven years old, admitted August 5, 1915, was five years in prison in Finland for shooting his father, and over ten years ago was in this institution. As to the occasion of this recent commitment he says, "They tell me that I got into a fight with another fellow. They took me to the hospital and then bring me here. I have had those spells since I was a boy. I don't know when they

Fig. 21.—Epileptic insanity. Shows marks from fall, also some degree of dementia.

are coming because they come like lightning. It takes me in the brain and head and goes in. Sometimes I would be sitting down. Most of the time it begins quick. I don't see anything when I have those spells. I had trouble with a woman, and when it come on that time it was like a cloud coming into my face and I was out (unconscious) about nine hours."

Epilepsy is a disease of youth, and 75 per cent have been reported as beginning before the twentieth year.

The prognosis is bad, but in some cases the intervals may be long. And in the degree of mental disturbance between patients there are big differences.

CHAPTER IX

ORGANIC DEMENTIA

1. Huntington's Chorea.
2. Multiple Sclerosis.
3. Cerebral Syphilis.
4. Tabetic Psychosis.
5. Arteriosclerotic Psychosis.
6. Brain Tumor.
7. Brain Abscess.
8. Cerebral Apoplexy.
9. Cerebral Trauma.

The anatomic basis given in structural change is the common fact that brings these several psychoses into the same group.

1. **Huntington's Chorea.**—Huntington's chorea is a chronic and slowly progressive disease. Usually the beginning comes with the patient over thirty. There is no connection with Sydenham's chorea. The etiology is not known, but the hereditary evidence is emphatic; generations may be skipped, but it is a disorder that belongs definitely to its own families.

Pathologic changes as meningeal thickening,

general brain atrophy and arteriosclerosis may cause the mental symptoms, while midbrain degenerations can explain the motor signs.

The mental and physical symptoms may or may not come on together and grow evenly. The movements are irregular, incoordinated, slower than in acute chorea, often begin in the hands and are somewhat under voluntary control. Facial muscles may be irregularly moved with the slow, loose jerks which show in a larger way in the muscle groups of the extremities and may involve most of the voluntary muscles of the whole body. Gait is swaying. In the end walking and writing become impossible.

The early mental changes have to do with a weakness of memory and judgment. There are grades of feeble-mindedness, often irresponsibility in work and irritability in conduct. These symptoms develop and become complicated with the physical conditions. The speech may be made explosive or indistinct. Delusions and hallucinations are not frequent, and suicide seldom happens. The disease makes an uncontrolled progress.

2. **Multiple Sclerosis.**—Multiple sclerosis is a disease with scattered sclerotic areas, pinhead size and larger, found irregularly in any part of the brain, cord, medulla, pons or cerebellum, and may involve the nuclei, roots or trunks of the cranial nerves; consequently there is a striking variety of symptoms.

The condition is relatively infrequent. In half the cases no cause is found. In others acute infections, chronic intoxications and heredity are named. Early adult life is usually the time of beginning.

Motor disturbances are far more prominent than mental symptoms. Muscular weakness is the rule and this comes often without atrophy. The gait shows stiffness and the feet drag on the floor. Muscle rigidity, intention tremor, nystagmus, scanning speech, the easy fatigue of speech muscle, paresis of eye muscles, apoplectiform seizures, dull pains, neuralgia, dyspnea, optic neuritis, and ataxia are among the possible symptoms, but any of these may be missing. Knee jerks and other tendon reflexes are increased, ankle clonus can be expected and Babinski's sign is frequent.

Then mental disturbance is usually of a lesser degree and seldom is sufficient to take the patient to a hospital. Hallucinations with mild confusion, difficulty in thinking and a faulty memory are evident, while periods of excitement or depression are possible. Laughing and crying may be involuntary and indicate a muscular rather than an emotional fault. Apoplectiform and epileptiform attacks sometimes happen.

The form of the symptom group depends upon the location and extent of the sclerotic patches. A gradual beginning of manifold symptoms, with im-

provements and relapses, gives ground for suspicion while the typical case goes on through a slow, uneven course to develop intention tremor, spastic paresis, nystagmus, scanning speech, ataxia, increased reflexes, optic atrophy and apoplectic manifestations, along with some limited involvement of the mentality and sensation, with also functional disturbances of the bladder and rectum.

The prognosis has in mind a course marked by remissions, gradually progressive, running six months to ten years or longer.

3. **Cerebral Syphilis (Vascular).**—Syphilis may invade any part of the nervous system. The location and the degree of development control the clinical picture, which usually has a name of its own to indicate the structures that are diseased.

Within the present decade laboratory studies have done much to establish syphilis as the direct and common cause of certain allied disease types, previously distinguished by their clinical findings. Thus cerebral syphilis and paresis are nearer together than they used to be. Whether the one may grow into the other is a question that has been answered both ways. The groups made by different authors somewhat vary.

Jelliffe and White in 1915 take up cerebral syphilis as vascular and parenchymatous and regard this parenchymatous form as paresis. They call repeated

attention to the fact that syphilis seldom limits itself carefully to any one spot or tissue. Consequently, it is probable that the description of a pure type would often be blurred if the full pathologic changes were known. In this fact lies one reason for the great variety of symptoms.

In the vascular form a period, varying from a few months to forty years, may come between the infection and the recognition of cerebral syphilis. Nearly half of these cases develop symptoms within three years. Headache, dizziness, insomnia and apathy are often prodromal incidents. In the beginning usually there is a defective memory and defective judgment, with a failure to recognize these faults. There is likely to be an overconfidence in strength and ability, and perhaps at the same time evident weakness of will. Periods of marked irritability usually come.

Of clinical pictures there is an indefinite number. Some suggestive combination is expected. Among other findings the following may occur: Alterations of the pupil, choked disc, optic neuritis, vomiting, dementia cured by treatment, monoplegias, epilepsy, hemianesthesia, nerve disturbances, abnormal sleepiness, palsies, despondency, stupidity, character change, hallucinations, delusions, and characteristic writing. No one of these is essential, but often several are in association.

The great value of the laboratory findings is now appreciated. Usually the Wassermann for the blood is positive. For the spinal fluid the Wassermann is likewise positive, also Nonne's albumin and Lange's gold chloride color tests; while the cell count, called normal at ten, is called abnormal at twenty and may go to one hundred or more.

In cases where the symptoms are close to those of paresis, the findings may hold the diagnosis of cerebral syphilis, but leave it a matter of opinion as to whether the syphilitic process has already gone from the vascular to the parenchymatous type.

As stated above, syphilis in the nervous system may involve any tissue within reach, be it brain or spinal cord or membranes, and the selection made is responsible for the clinical disease that follows. With the common cause recognized, the explanation of different overlapping pictures is helped. For tabes dorsalis and paresis the expression "parasyphilis" has been used, but the occasion for this extra term is not beyond dispute, if these really are just forms of disease due to infection within the limits of cerebrospinal syphilis. The present classification is in the process of adjustment and can not be regarded as fixed.

4. **Tabetic Psychosis.**—Tabes dorsalis is a chronic poisoning caused by syphilis. The examination of the blood and spinal fluid is now added to the other

Fig. 22.—Organic dementia, tabetic psychosis.

established clinical findings which belong to general medicine.

In some cases there is mental disturbance. There may be forgetfulness, a showing of easy fatigue, as well as some changes in disposition. Sometimes there is a more abrupt beginning of the mental symptoms, with the patient excited and restless, and then hallucinations of hearing are often prominent. Such a condition can clear and may recur. The orientation is normal. In the tabetic psychosis the degree of deterioration is not progressive, and in this it is different from paresis.

5. **Arteriosclerotic Psychosis.**—Arteriosclerotic insanity is a chronic disease, but with paroxysmal clinical evidence, with symptoms that come and clear as allowed by the developments that have followed the changes in the cerebral arteries. Syphilis and alcohol are often mentioned as being responsible for the beginning.

When there is a general systemic condition the factors usually prominent are chronic toxemia, hypertrophy of the left ventricle, high blood pressure, and a chronic nephritis. In such a case some atrophy of the whole brain is expected, and thickening of the arterial walls.

But the disease does not necessarily mean a general arteriosclerosis, for the condition may be regional and thus there may be even extensive cerebral

involvement, without radial indication. A high blood pressure has been held suggestive, but it is not an essential point in the diagnosis, and some authorities have found it absent in over three-fourths of such cases.

A limited portion of one hemisphere may show well developed arteriosclerosis, while a careful autopsy fails to find evidence of arterial change in any other part of the body. Also this circumscribed lesion may exhibit mental, motor or sensory symptoms, in harmony with the special centers involved.

The autopsy findings vary with the localizing incidents and the degree of the degeneration changes, which may be most marked about the vessels or close to the cortex. The ventricles may be dilated, local hemorrhages with extensive areas of softening can occur, and an unevenness in the distribution of pathologic tissue is the rule.

There is no pathognomonic symptom and between individual cases there is a good deal of difference. Often there is lessened energy and interest in work, together with forgetfulness and emotional depression, perhaps also sleeplessness and irritability. Headache, dizziness and deafness are possible complaints. The dementia is progressive and shows in a growing inefficiency, in the loss of ability of emotional discrimination, in the failure of comprehension, and in incoherence of speech. Hallucinations,

delusions and a further confusion of thought come for some cases. Focal degeneration produces a disturbance according to the area involved. Thus speech, sight, hearing or some special faculty of the mind or hand may be lost. The end condition does at times leave the patient disabled and entirely dependent on the care of others.

It is characteristic for these patients to hold well their own personality, which fact becomes a point of diagnostic consequence, for in senile dementia this is less true. The laboratory report helps to separate the general paretic.

The diagnosis has to study the whole picture and then eliminate the other psychoses which come up for consideration.

6. **Brain Tumor.**—Brain tumors do not always have mental symptoms. Those that do, usually either touch the cortex or reach it by pressure.

Tuberculosis and syphilis are the two prominent infectious causes, while in addition to true tumors there can occur developmental anomalies and aneurysms of the cerebral vessels.

Both physical and mental findings are controlled by the location and size of the tumor. The mental symptoms are not enough to give a diagnosis; that must have also all the signs available. And localization calls for special skill in the study of the whole picture, for which reference is properly made

to texts of a different sort, which have direct regard for the responsibility of the surgeon.

Headache often comes early. Nausea, vomiting, dizziness, convulsions, paralysis, dyspnea, heart disturbance and optic nerve changes are suggestive symptoms which may occur in any combination, or all develop together.

When a mental change comes it is of a sort that could belong to paresis or arteriosclerosis. Attention and comprehension are at fault; the patient is slow in movement and thought, showing confusion, lack of interest and loss of energy; moral standards are lost and delusions and hallucinations may be present. The size and site of the tumor limit the degree of disturbance, and the symptom group varies for each patient.

Multiple sclerosis, tuberculous meningitis, and hysteria have also to be separated in the diagnosis, which the laboratory report and a full display of all signs and symptoms help to get through elimination.

7. **Brain Abscess.**—An abscess implies infection and in the brain it is most frequently a secondary development.

There are not always mental symptoms. In some cases the clinical history is like cerebral tumor. Temperature and headache, with a slow pulse, may mark the beginning. Later an acute case can go to delirium or stupor.

8. **Cerebral Apoplexy.**—Arteriosclerosis and syphilis are the diseases most frequently responsible for cerebral apoplexy. There may be a cardiovascular-renal involvement. A high blood pressure increases the liability, and a sudden change in the blood pressure may be the immediate cause. Under the term "apoplexy" we include cerebral hemorrhage, thrombosis and embolism, which are similar in the clinical manifestation by which the disaster is announced; though it should be borne in mind that while an embolism is abrupt, and a hemorrhage is usually so, a thrombosis is of variable duration in its developmental period. This is often followed by a state of confusion, random movements, and the doing of queer or unexpected things. The later condition is made by the residuals, which have to do with the preceding disease and the area invaded. A careful estimation of these remaining symptoms sometimes can make localization possible and indicate the prognosis.

9. **Cerebral Trauma.**—A head injury can be of any degree, and thus the range of symptoms possible in cerebral trauma is indicated. Further, if there are complications, such as hemorrhage or any gross harm to brain substance, the picture shapes accordingly. Unconsciousness may follow the injury, or a mental incapacity come on later. A befogged condition may clear slowly, and a loss of memory from

Fig. 23.—Organic dementia, cerebral apoplexy.

the time of the accident is characteristic, while in some few cases the memory loss has antedated the accident, including a period of a week or more.

The extent of cerebral cell injury rather measures the violence of the trauma, and even in many cases where no diagnosis of hemorrhage is made it is possible that numerous minute scattered hemorrhages have occurred.

A change in character is usual, along with phenomena of various sorts. The patient often shows weakness in ordinary movements and suffers from vertigo. He may be indifferent and passive or irritable. Delusions sometimes come, or there may be a fabrication of memory and rambling speech. Disorientation, dejection, whining, incoherence, forgetfulness and tinnitus are other possible symptoms.

An illustration of this type of a case is given in the history of a laborer committed to the Western State Hospital several months ago. The court papers indicated that not much was known of the man. His mental disturbance had been increasing through a week. He was confused, rambling, disconnected and made exaggerated and contradictory statements. He was unable to find his way about; was put down as dangerous and brought to the asylum with the diagnosis of epilepsy. The records here show that on examination it was impossible to obtain any dependable history. After admission he had a number

Fig. 24.—Organic dementia, cerebral trauma.

Fig. 25.—Organic dementia, cerebral trauma.

of severe epileptiform attacks. The befogged condition was slow in clearing; later fabrication of memory and disorientation as to time and place and persons were evident, and judgment delusional. Blood pressure was systolic 210 mm. The patient was for some time considered in a critical condition, and given neutral tub treatment in the hydrotherapy department.

Through the month after admission the patient continued very much confused, but became able to state that his mind had been blank and that his last recollection while outside was of working in a logging camp, seeing a log coming towards him, and being hit on the head by the steel cable. This fact was confirmed by outside statement. Two weeks later the man was out working on the lawn, able to answer questions without confusion, eating well and sleeping well, and was without further seizures.

Today the patient does not recollect his coming to this hospital nor the first of his stay here. His manner of speech is quiet and straightforward. There is no evidence of delusions. Blood pressure is systolic 170 mm. and diastolic 115 mm. The provisional diagnosis has been revised to organic dementia, cerebral trauma (Diefendorf), and it is expected that he will soon be discharged.

CHAPTER X

INVOLUTION PSYCHOSES

1. Melancholia.
2. Presenile Delusional Insanity.
3. Senile Dementia.

Various kinds of insanity may happen to come to a patient who has reached the period of physiologic involution, but melancholia, presenile delusional insanity and senile dementia are forms which have to do directly with the involution changes.

1. **Melancholia.**—By some it is claimed that melancholia is a type of the manic depressive group modified by the changes of the involution period in which the ductless glands may figure, but this is not established beyond dispute.

Melancholia is a psychosis characterized by anxiety, despair, and a grave persistent depression, together with a suppressed agitation that shows physically in muscular tension and increased psychomotor activity. It is a chronic disease, usually slow in development and rather free from marked variations in its course. The beginning comes often in the sixth decade; nearly two-thirds of the patients

Fig. 26.—Involution psychoses, melancholia.

are women, and about one-third go on to recovery. Neglect of work, indifference to the regular interests of life and anxious worrying are early findings which may be accompanied by numerous physical discomforts and mental faults. Hallucinations are rather the rule, and may give the foundation for the delusions that follow. Self-condemnation often is a prominent symptom; and a readiness to go without food can cause a loss in weight. The despondency is of a sort that does not lighten in response to incident or effort.

The possibility of suicide is the great danger that must be held in mind, because frequently this is a compelling thought, while the patient has the mentality and physical ability that is sufficiently responsive to carry out such a threat.

Arteriosclerosis, some nerve cell degeneration, and limited atrophy of the brain are the most frequent autopsy findings.

Mrs. H., who came to this hospital in 1913, was then quiet, orderly and depressed. She was near fifty, had grieved greatly over the death of her husband, and talked of killing herself. When nervous she saw and heard all kinds of things. Sexual excitement was marked. She had somatic delusions and said she had blood poisoning and cancer. Then there were restless spells and a strong craving for

Fig. 27.—Involution psychosis, melancholia.

sedatives. She at times would bite herself, and at night sometimes saw skeletons dancing about the room. Also she seemed conscious of the presence of her dead husband, and had delusions that grew out of hallucinations. There was a period of improvement, but later she failed again. There was loss in weight and increase in depression; she grew noisy and had unclean habits. She complained of a devil in her throat urging her to kill.

2. **Presenile Delusional Insanity.**—Presenile delusional insanity is an infrequent diagnosis. It usually begins in the fourth decade with symptoms that suggest a dementia precox modified by the change of adult life. The prominent symptoms are irritability, with a progressive dementia that allows a great variety of unstable delusions. These delusions may have to do with bodily derangements, suspicion, persecution or infidelity. Charges of unspeakable conduct will not, however, hold the patient from his usual association with the persons involved. The orientation stays normal. The conduct shows a general irresponsibility.

3. **Senile Dementia.**—For patients around sixty years of age, one of the most frequent conditions leading to commitment is senile dementia. The organic changes upon which this psychosis depends are of a progressive sort. General atrophy of the

Fig. 28.—Involution psychosis, presenile delusional insanity.

brain is definite and characteristic. There is an increase of the cavity fluid, cell degeneration, arteriosclerosis, and sometimes minute scattered hemorrhages.

Some authors do not formally recognize this psychosis; others go into subdivisions. At any rate the patients for such a group are here in the hospital; they are too difficult to be taken care of at home.

Some hereditary tendency and a high blood pressure are often in the background, while sickness, mental strain, or other hardship may be the precipitating incident.

Recovery is not expected. There is gradually increasing evidence of the disease. Most such cases are in the hospital less than five years. The memory is bad for recent events, but dwells more in the early past. The patient comes to live in the past and this fault in memory may in some considerable degree be a factor in the conduct, which shows errors in judgment, careless improprieties and perhaps a tendency to be negligent, to destroy or to pilfer. The thought processes are slow and show confusion. The mood shifts and may be irritable or despondent. Distrust and suspicion will sometimes color the delusions that may grow out of illusions or hallucinations. A broken, restless night

Fig. 29.—Involution psychosis, senile dementia.

in which the different symptoms are worse is the rule, as is also a daytime drowsiness.

Among the physical signs, high pulse pressure, tremors, partial paralysis, tinnitus, diminished sensibility, and small, uneven pupils often occur.

CHAPTER XI

CONSTITUTIONAL INFERIORITY AND DEFECTIVE MENTAL DEVELOPMENT

1. **Constitutional Inferiority.**—Constitutional inferiority is a name that may be used in classification for a group allowed arbitrarily to include certain borderline psychopathic states. Most of the cases thus considered are weak individuals with a defective heredity, who have often suffered further in an unfortunate environment. The evident fault may go in one direction or another and get some further name according to the psychopathic feature that is made prominent. Nervousness, dejection, excitement, compulsion neurosis, and sexual perversions are manifestations that mark different types. Of course, many such individuals are in their own homes, but when the difficulty of their care and control passes a certain point it becomes necessary to provide institutional supervision.

2. **Defective Mental Development.**—Defective mental development differs from dementia in that the individual never has had ordinary mentality.

Fig. 30.—Constitutional inferiority. Note jug handle ears.

There are different grades; the most severe is called idiocy and hardly goes beyond mere existence, an adult going no further in development than a child

Fig. 31.—Constitutional inferiority.

of three. A better ability, but one that does not go beyond the age of seven, can belong to an imbecile, while the term "moron" or high grade imbecile is

Fig. 32.—Defective mental development, imbecility.

used by some when the ability corresponds with that of a child between seven and twelve years of age.

Fig. 33.—Defective mental development. See doll in hand.

The imbecile is usually recognized in childhood. He shows variations from normal conduct, may be morbidly stupid or overactive and irritable; often

shows a lack of sense of responsibility and an inclination towards many improprieties.

Fig. 34.—Defective mental development.

Usually an imbecile will make some improvement under instruction, but does not develop enough to take care of himself.

CHAPTER XII

INTOXICATION PSYCHOSES

1. Acute Alcoholic Intoxication.
2. Chronic Alcoholism.
3. Delirium Tremens.
4. Korsakow's Psychosis.
5. Acute Alcoholic Hallucinosis.
6. Alcoholic Hallucinatory Dementia.
7. Alcoholic Paranoia.
8. Alcoholic Paresis.
9. Alcoholic Pseudoparesis.
10. Morphinism.
11. Cocainism.

1. **Acute Alcoholic Intoxication.**—For certain individuals, the effect of alcohol taken freely regularly goes beyond what may be termed physiologic drunkenness, and in these cases acute alcoholic intoxication is properly put as a psychosis.

The pathologic evidence comes with the extreme exhibition of particular symptoms, as anger which may lead to violence, or despondency with attempts at suicide, or destructive acts, or a shamelessness that has no reserve, and instances of this type can

be expected to repeat this picture whenever the circumstances are favorable.

2. **Chronic Alcoholism.**—Tolerance for alcohol varies greatly, but where used persistently it marks more or less every organ in the body. There are demonstrable changes in the brain and cord. Inflammation of the membranes, some general atrophy, dilatation of the ventricles, and localized arteriosclerosis are among the findings.

The heredity is often bad, and drinking habits on the part of the father are common enough to be significant.

The mental deterioration is slowly progressive. It becomes hard to give attention to the matter in hand. Indifference, forgetfulness, negligence, and irritability may be associated with faults in judgment and an open disregard for customary proprieties. Illusions, hallucinations and delusions of jealousy are all possibilities. Also there are physical signs. Perhaps the most characteristic is the fine tremor that shows best in the hand, and thus in the writing. There are various disturbances in the sensibility of the skin. Partial paresis, and lesions of the optic nerve and retina can happen, and occasionally there are convulsions.

This dementia is like others in being gradually progressive, but differs in having its alcoholic history which is essential to the diagnosis.

Chronic alcoholism provides the foundation upon which several of the intoxication forms can develop.

3. **Delirium Tremens.**—Delirium tremens comes to those who are chronic users of liquor, often at the time of a debauch, but alcohol alone is not a sufficient cause. Usually the history gives additional circumstances that overstrained, weakened, or shocked the individual and produced functional disturbance.

The beginning may be abrupt, but prodromal restlessness, loss of appetite, irritability, and insomnia are the rule, and there may also be a definite dislike for liquor expressed.

The mental disturbance that follows is marked by vivid hallucinations of which there is a great variety; cannons and bells, angels or devils, monkeys and snakes are more or less common. The illusions may show as a tendency to see spots and believe them crawling. The delusions are shifting. They may be fanciful and grotesque and commonly display fear. The patient frequently shows anxiety and excitement, but occasionally is inclined to be jovial. And along with all of this there is a definite confusion which leads into delirium. Sometimes there are lucid intervals. The part of the memory best held is for the remote past.

Physically there is the tremor of small muscles that shows specially in the hand, face and tongue.

Fever, albuminuria, double sight and parasthesias are other findings.

The prognosis is good for nine out of ten. Some go quickly to the fatal end.

4. **Korsakow's Psychosis.**—In Korsakow's psychosis there is a lack of impressibility, a loss of memory for recent events, together with a fabrication that is characteristic. The case is nearly always one of chronic alcoholism with the signs of a polyneuritis. There may have been recurrent delirium tremens, but other intoxications sometimes give the apparent cause, and further instances are reported as occurring in paresis and senile dementia.

The pathologic changes mark both brain and cord, and are of a sort that might belong with a severe alcoholic toxemia. Minute cerebral hemorrhages can explain the variety of focal symptoms.

The lack of impressibility is perhaps responsible for the loss of memory for recent events, and also for the confused orientation. It is characteristic that lapses in thought bring out fabrications. These are often far away from the facts, but are plausibly put, and even when outlandish or impossible seem to fully satisfy the patient. This tendency to fabrication can usually be further drawn out by questions. In other connections the judgment may be apparently normal.

The mood of different patients or of the same patient at different times may indicate anxiety, indifference, apathy, irritability, or good humor. Some make a gradual improvement, enough so that they can again take up their work, but more develop a dementia that goes away from recovery.

5. **Acute Alcoholic Hallucinosis.**—Hallucinations of hearing, leading to delusions of persecution, nearly always mark the beginning of an acute alcoholic hallucinosis. Conversations are overheard in which all manner of evil statements are made concerning the patient and his affairs. These delusions may quickly develop some loose paranoid pattern.

The commencement is usually abrupt and the antecedent history alcoholic. Often there is insomnia, anorexia, loss in weight, and a tremor of hands and tongue, but on the whole the physical signs are not marked and the patient is rather free from restlessness.

The relation to delirium tremens is close, and there are borderline cases, but in acute alcoholic psychosis there is relative freedom from disorientation, clouding of consciousness, and physical disturbances. Further, the prominent and characteristic hallucinations are those of hearing.

The prognosis looks to a recovery made after several weeks, but some cases become chronic.

6. **Alcoholic Hallucinatory Dementia.**—When delirium tremens or acute alcoholic hallucinosis partially clears only to later lapse into a chronic state marked with hallucinations and giving general evidence of dementia, the diagnosis may be revised to alcoholic hallucinatory dementia, and certain other cases may be put here without a reclassification. The patient hears voices that threaten him, in imagination he suffers at the hands of his persecutors physical harm as well as indignities of various sorts. The delusions tend to become of paranoid type, are more or less persistent and are kept up without much change. Frequently they concern the body and may show some sexual phase. Anxiety or irritability may mark the conduct at first, but later there is generally some humor in the attitude.

Without alcohol, progress may be stopped, but real recovery is not expected.

7. **Alcoholic Paranoia.**—Delusions of a paranoid type occur with several different psychoses. When a chronic alcoholic condition is responsible, the descriptive term "alcoholic paranoia" can be used.

In such a case delusions of jealousy are often connected with circumstances that permit the possibility of the charges made, but the reasons given are not of a sort to carry conviction and may be entirely absurd. Thus, some trivial incident may be mentioned as proof of infidelity. It is characteristic

that the most grave statements made do not disturb the readiness of the patient to associate in or-

Fig. 35.—Intoxication psychosis, alcholic hallucinatory dementia.

dinary manner with those whom he accuses. Hallucinations of hearing are at times present. Estrangements within the family can be understood.

With alcohol taken away, temporary improvement is expected, but not recovery.

8. **Alcoholic Paresis.**—While a diagnosis of alcoholic paresis has sometimes been used, it is probably better that such a case should be known as paresis, with certain extra findings for which alcohol is responsible, as delusions and hallucinations of infidelity, the alcoholic tremor, and neurotic symptoms. However, it must be borne in mind that according to circumstances the alcoholic picture or the paresis may develop first.

9. **Alcoholic Pseudoparesis.**—Certain instances of marked alcoholism may simulate paresis. Chronic alcoholism with a sudden beginning of mental disturbance, carelessness of manner, feelings of well-being, delusions of grandeur, pupillary variations, a muscular fault that shows in speech, writing and gait, together with tremors and painful joints, makes proper the name "alcoholic pseudoparesis."

A differential diagnosis notes the history, the general prompt improvement when liquor is stopped, and the laboratory examinations of blood and spinal fluid. With alcohol stopped, the patient goes on to recovery or develops some degree of a chronic alcoholic dementia.

10. **Morphinism.**—In this country morphinism nearly always has begun in the taking of the drug to relieve pain. The susceptibility of different in-

dividuals varies much. Often the habit is established before it attracts attention. A weakness that is muscular, mental and moral comes gradually. Temporary stimulation is obtained from each injection, but is followed by a period of reaction to which belong all the disturbances due to toxemia and the craving that can only be allayed by a gradually increasing dose, which may go to forty grains or more. If there be such a thing as a truth center in the brain it is certainly injured by the use of this drug. At first for gratification, but soon to vainly diminish the distressing urge, it is taken. Some observers, however, believe that heroine still more readily leads to moral insanity.

Irritability is usual, also faults of judgment, lack of purpose, and mental enfeeblement; some cases show illusions and delusions.

Morphine locks up the secretions, contracts the pupils, and gives an itchy, dry skin which, when a localized symptom, takes the hand frequently to the nose. There are many incidental discomforts, with a tendency to complain of the same. Often the skin gives plain evidence of repeated hypodermic puncture.

Examination has found albumin and glycosuria. Ataxia, cachexia and collapse are possibilities.

With the full removal of the drug there can be recovery, but the liability to recurrence is great.

11. **Cocainism.**—Cocainism is rather usually complicated by the taking of some other drug as morphine. The symptoms are for the most part those of morphine, but the developments towards disturbance come quickly. Hallucinations are likely to be vivid, and frequently the sensation of objects felt beneath the skin is distinctive. Delusions of a disturbing sort may have to do with persecution or infidelity. The patient is overenergetic but fails to accomplish much. The degree of excitement leads to uncontrolled and bizarre conduct. Cocaine dilates the pupils. Abstinence from the drug promptly brings mitigation of its effect, but the permanency of recovery is always doubtful.

CHAPTER XIII

THYROIGENOUS PSYCHOSES

1. Myxedema.
2. Cretinism.

Both myxedema and cretinism are understood to be conditions that develop because of a failure in the internal secretion of the thyroid gland, which as a hormone may control processes of growth in other tissues.

1. **Myxedema.**—Myxedema following surgical removal of the thyroid gland has made an opportunity to study the group of symptoms. Now operative myxedema is rare, but the full relation of the gland to the idiopathic type is established. Adolescence or later is the usual time of beginning. Often the rough, thickened skin comes first along with the atrophy of the gland. Hands are thick and clumsy; genital anomalies are frequent; the bones thicken and fail in development. Lumpy, large, fatty masses may show in the supraclavicular spaces or on the arms. Metabolism is slowed and leads to faults in digestion. Faults in nourishment show sometimes with the nails brittle, the hair dry, and the teeth

loosened. The movements seem slow and difficult. The mental action also drags and suggests a lack of interest. The degree of mental and physical changes varies from a mere stiffness in manner and thought to restlessness with insomnia, anxiety, and delusions, that indicate the mental possibilities of this psychosis. The blood has eosinophiles. White and Jelliffe give a congenital form that near the time of weaning develops rapidly, but usually does not live to grow up.

2. **Cretinism.**—The word "cretinism" is allowed as the name for a condition marked by the display of certain mental and physical changes, beginning in the very young and being slowly progressive. The cause is thyroid defect in function; and one theory is that this is the effect of some water-borne noxious element, got from the ground in certain districts.

This so-called "endemic cretinism" has the bones shortened, with various anomalies and deformities. The skin is thick, loose and wrinkled. The neck is short and thick, the face swollen, the tongue thick, and the whole figure clumsy. The sex organs fail in normal growth. Nutritive processes are sluggish. The child is apathetic and dully inactive. Arrested development is apparent. Frequently there is sensory impairment, especially of hearing. The mental evidence is a mass of faults, but there is much difference between individuals; some never reach

Fig. 36.—Taken at age of 5 years. Thyrogenous psychosis, cretinism.

coherent speech, while others are even near normal. There may be goiter with decreased secretion, or atrophy of the thyroid, and frequently the hypophysis is enlarged. Early injury to the gland can cause sporadic cretinism. Also aberrant types occasionally occur.

CHAPTER XIV

INFECTION AND EXHAUSTION PSYCHOSES

(a) Infection Psychoses.
   1. Fever Delirium.
   2. Infection Delirium.
   3. Postinfection Psychosis.

(b) Exhaustion Psychoses.
   1. Collapse Delirium.
   2. Acute Confusional Insanity.
   3. Acquired Neurasthenia.

When an infection is at all serious it develops some degree of exhaustion; also where exhaustion lowers the resistance the liability to infection is increased. Thus infection psychosis and exhaustion psychosis often overlap and have their symptoms entangled. However, this occurrence may not happen, so the conditions are separately described, with recognition of several clinical groups.

Infection Psychoses

1. **Fever Delirium** is a mental disturbance that accompanies fever, and the degree of resistance to

its development indicates the measure of mental stability. The duration has somewhat to do with the picture because this is inclined to bring symptoms rather in a routine order. Four grades are observed. The beginning has sensitiveness to light and noise, headache, restlessness and insomnia; the second has confusion and hallucinations; in the third, motor symptoms are increased and lack control; while in the fourth consciousness is dulled, the movements have no purpose, the muttering is incoherent, and coma with death then expected.

2. **Infection Delirium** names the mental state that may come in an early stage of infection, the cause of which brings the typical signs of its own disease. Distention of the blood vessels in the cortex may be responsible for confusion of thought, disorientation, excitement, flight of ideas, hallucinations and delusions.

3. **Postinfection Psychosis** indicates an exhaustion, or the continued effect of a toxemia not fully cleared away. The patient fails to get back his former interest and energy. The mood is sad. There may be shifting hallucinations. With a further development there often are delusions of persecution, disturbing voices, and grinning faces. The one who suffers thus may be quarrelsome or tempted to suicide.

Exhaustion Psychoses

1. **Collapse Delirium** is infrequent. Loss of blood and shock are the principal causes, and infection can indirectly have an influence. Everything seems changed and gives reason for perplexity. Restlessness, insomnia, and confusion are common. Violent psychomotor activity, full disorientation, incoherence, illusions, hallucinations, and delusions are all possible.

2. **Acute Confusional Insanity** has causes such as loss of blood, illness, and mental strain. Perplexity is apparent. There is clouding of consciousness with motor excitement and incoherence. The whole picture is not as abrupt or acute as in the case of collapse. Anxiety, restlessness, forgetfulness, prostration, various physical discomforts, also mental faults due to confusion, emotional unevenness, and lucid intervals are all among the findings occasionally recorded. The course of such psychosis usually lies within a three months period.

3. **Acquired Neurasthenia** is a term that may be used for chronic nervous exhaustion. It is a condition that belongs usually to the period most exposed to extra mental strain, which is between twenty-five and forty-five. An early training that lacks discipline, and allows a deficiency in character development, increases the liability. Heredity can pro-

vide a predisposition, and an irregular life tends to lessen normal resistance. The provoking cause can be overwork, but often it has also to do with the continued effort made to meet the various demands that overcrowd daily life. In this connection it is to be kept in mind that there is a great difference between individuals as to what constitutes overwork.

In some measure the condition is the direct outcome of the fatigue of a nervous system that has not been allowed sufficient relaxation, but it is more to be regarded as a chronic intoxication to which various irregularities, both nervous and physical, have contributed.

Because of the circumstances, the beginning can not belong to any exact date. The individual perhaps grows irritable, and is inclined to a tiredness that is all out of proportion to what has been done. Thinking becomes an effort, attention is difficult and easy distractibility evident. It costs an effort to stay at regular work. Amusement does not rouse the interest. There is a variety of physical faults, especially functional disturbances. Head pains are frequent, and deficiencies in elimination far reaching in their consequences. Discomforts of all sorts are exaggerated so constantly that this is a point in differential diagnosis. Patients show anxiety as to their health. Usually they appreciate their own

inefficiency, and worry over the fact. Emotional instability shows with impulsiveness. Usual results in work are not reached. There may be noted abnormalities in sensation. Broken nights tend to increase the apparent nervousness. Muscle twitching and a tremor in the eyelids and hands are possible incidents. Disturbances in digestion can be expected to bring a certain train of symptoms. Such patients are inclined to demand much of others, without seeming to realize the unreasonableness thus shown.

The findings all put together shape a new picture for each separate case, and diagnosis must then eliminate the different forms of dementia. If the cause can be recognized and sufficiently mitigated, then the prognosis may become favorable.

CHAPTER XV

PSYCHOGENIC NEUROSIS

1. Hysterical Insanity.
2. Traumatic Neurosis.
3. Dread Neurosis.

1. **Hysterical Insanity** is the name used to designate a certain mental state that becomes responsible for a kaleidoscopic display of physical symptoms which suggest particularly a lack in normal control. It is possible that the best explanation has to do with a dissociation within the personality of the individual.

The origin of the word carries the ancient Greek belief that the cause lay in the womb, while the present teaching considers the influence of repression in the sexual sphere.

The subnormal, poorly endowed, and unevenly balanced constitution is most exposed to this psychosis.

The symptoms are of a sort calculated to attract attention and gain sympathy. There is often an evident emotional excitement that can lead to impulsive acts. Actual occurrences, incidental hardships

or illnesses, are liable to gross exaggeration, with emphasis being given to unimportant detail. Such patients complain about trifles and do not get away from a self-consciousness that gives an ill-founded importance to all that concerns them.

The physical symptoms also are manifold and include various erratic sensory disturbances. The list of possible symptoms is indefinite, but all the way through it is characteristic that the relation of cause and effect demanded by physiology and anatomy is disregarded.

The degree of development varies with the patient, but some reach a befogged state marked by silly excitement or epileptiform convulsions. This psychosis belongs to youth or adult life. The course is not progressive. The prognosis as to any period of special development is good, but the chance of recurrence is accepted.

2. **Traumatic Neurosis.**—One author gives traumatic hysteria as a synonym for traumatic neurosis and develops the subject accordingly; another allows traumatic neurosis to have traumatic neurasthenia and traumatic hysteria as subdivisions, and believes the definition should be broad enough to include the result of psychic as well as physical shock; a third puts traumatic neuroses and psychoses together in the title of a chapter; while a fourth quite rearranges the grouping. However, if the

origin of the word is to protect its meaning, a neurosis should limit itself to a functional disturbance of some certain part of the nervous system, without any mechanical lesion sufficient to be a full cause. Taken thus, traumatic neurosis is hardly a mental disease, but it may become an important factor in adding mental to physical symptoms and thus be enmeshed in its own consequences.

A logger was struck by the roll of a falling tree, and suffered a fractured rib and a bruise of the left shoulder. He had hospital care, until dismissed as in condition for work, and feeling well himself. When he started to work the movement of the arm brought pain, so he stopped, came to town, and stayed with his brother. Some three weeks later, when examined, the story given was of a condition not progressively worse. Upward movement of the arm brought pain, but with gentle force the hand could be put on top of the head. With the arms moved up, there was a muscle twitching at the back of the left shoulder. For the left side of the trunk and left arm there was diminished sensibility to external stimuli, much of the time a hemicrania, the extended hands showed a tremor, and for both eyes the field of vision was somewhat limited. In the case of this patient it is believed that the accident did certain actual injury, but not of a sort to be responsible for all of the several symptoms recorded.

Sometimes the Mannkopf test is of help. Pressure on a point alleged to be painful is made with the pulse under observation; when there is actual pain usually the reflex action quickens the rate.

The course may stretch into months or years, but with the aggravating conditions removed, the prognosis is good.

3. **Dread Neurosis** is developed out of a psychic trauma and, displaying some certain anxiety, comes to limit and color everything for that individual. Commonly some of the more frequent and ordinary acts are involved. The beginning may be connected with an illness or some temporary fault that suggests thoughts of fear, which through subnormal judgment may enter at the point of least resistance and become established. The dread may concern itself with any ordinary physical act, or with the inability to do other things that belong to the life of the patient, and this fear having invaded some particular field is progressive there. Some instances go on to full incapacity and show extreme suffering, but it is characteristic that pain of some actual physical sort is philosophically accepted as belonging to its cause.

The course is tedious, but recovery may come.

CHAPTER XVI

CONSTITUTIONAL PSYCHOPATHIC STATES: UNDIAGNOSED PSYCHOSES: INCIDENTAL COMMENTS

The constitutional psychopathic states gives an appropriate name under which can be classified certain individuals of pathologic mentality, who can not well be diagnosed within any one of the ordinary forms of mental disease, but who have a defect in character that has developed far enough in some one direction to get a name for itself; thus, there is criminalism, emotional instability, inadequate personality, nomadism, paranoid personality, pathological liar, sexual psychopathy, also other forms.

A hospital classification properly makes a place for those "not insane" and not classified. The commitment examination occasionally is done under circumstances of disadvantage, as in the case of a foreigner who speaks only his own language and does not have an interpreter; or where some condition of confusion or other disturbance really belongs to general medicine. In such instances it may be advisable that the patient have hospital care pending the development of the diagnosis.

In other cases there may be evidence beyond dispute of mental fault, and yet in the group of symptoms, too much of a departure from any recognized type to be well placed with a label. This confusion can come when one mental disease has been complicated by a second, or when the patient is too atypical in signs and symptoms to be put within the definition of any one psychosis. For, while in the scheme of a classification the dividing lines are well drawn, in practice these may be rubbed out by borderline patients.

In the naming of a mental disease, the procedure is sometimes easy, without dispute, and likely to stay without change. But again, as noted in the chapter on Examination, there are cases where continued observation gets additional facts, special examinations add technical information, and the passing of time allows comment as to the progressiveness of the condition, and thus may prove the wisdom of a provisional diagnosis open to revision.

Of the different mental diseases there are two which stand apart as being nearer to the normal than the others. Epilepsy and the manic depressive group have in common what is often a fully rational interval. Just then on immediate evidence such a patient could be judged sane, but it is more reasonable to speak of recovery from the attack and

to have in mind the liability of its return. The frequency and character of the attacks give data for an opinion as to the manner in which such a patient would probably conduct himself away from hospital supervision.

CHAPTER XVII

SHELL SHOCK

Shell shock has not been formally classed as psychosis, but inasmuch as one fifth of the present war disabilities are thus listed, the subject claims serious attention.

The symptoms and signs vary. They are both physical and mental. Often the latter are the more prominent.

Usually the sufferer is befogged, disoriented, and shows amnesia. He does not hear orders, may laugh or cry, and is liable to wander away without any effort at keeping out of danger. Involuntary movements, twitching, spasms, jerks, or even convulsions can happen. Cases of temporary blindness or deafness accompanied by frightful hallucinations are recorded. Profuse sweating is a common symptom, and the shock patient often starts from sleep in terror. Some show peculiarities of gait awkwardly dragging heavy feet, carry their bodies twisted towards some trench position, or perhaps develop monoplegia.

The type and variety of manifestations has the range of traumatic hysteria. It was observed that

many cases happened without exposure to any external violence, and this led to the belief that a large part of the whole group were properly instances of a psychoneurosis; a functional disturbance without any definite pathological background.

Doctor M. Allen Starr in a brief article* skillfully reviews the most recent studies that have to do with the evidence of physiological and pathological changes found in shell shock.

The soldier is taken rather abruptly from his home, carried through a time of intensive training, put in the battle area where first he sees the wounded and hears stories of atrocities, and then is himself in the front trenches waiting. The alertness and tension demanded produce as secretions the body substances needed to supply the muscles nourishment for strenuous activity. When opportunity of relief in action is denied, these same substances reabsorbed become toxic.

Rabbits kept awake one hundred hours die, and the brain cells show depletion. The same findings are made when a rat is frightened to death. This is the change of exhaustion, and it is believed that men may suffer from similar cause.

Further, autopsies in shell shock cases have found multiple scattered minute hemorrhages (sometimes hundreds) which explain disconnected symptoms.

*See Scribner's Magazine, August, 1918.

Atmospheric pressure in the vicinity of a large shell becomes ten tons to the square yard, then yields to a corresponding depression. Such an abrupt change in atmospheric pressure can produce bubbles of gas in the blood which do damage as emboli.

These are given as some of the explanations for shell shock.

It is probable that a strict psychoneurological examination made by the draft boards could have done much to protect the army in its record, for commonly the essential ground work lies in the individual himself, and the weakest always breaks first. However, in many instances the causes referred to give full organic evidence for the development of all the findings gotten in shell shock.

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